

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (currently amended) A tire status monitoring apparatus for monitoring statuses of a plurality of tires provided on a vehicle, the tire status monitoring apparatus comprising:

transponders provided on the respective tires which detect statuses of the tires in response to a request signal and generate transponder data including data indicative of the statuses of the tires detected; and

a transceiver which transmits the request signal to each transponder, receives the transponder data from each transponder, and determines the number of times the request signal is transmitted per unit time in accordance with a speed range of the vehicle;

wherein the transceiver has a plurality of speed ranges including a first speed range and a second speed range in which a speed of the vehicle is faster than that in the first speed range, wherein the number of times the request signal is transmitted per unit time is constant within each speed range, and wherein the transceiver increases the number of times the request signal is broadcast per unit time when the speed of the vehicle increases from the first speed range to the second speed range.

2. (currently amended) The tire status monitoring apparatus according to claim 1, wherein the transceiver determines a time interval at which the request signal is transmitted in accordance with the speed range of the vehicle.

3. (currently amended) The tire status monitoring apparatus according to claim 1, wherein the transceiver changes the number of times the request signal is transmitted per unit time as the speed range of the vehicle changes.

4. (original) The tire status monitoring apparatus according to claim 1, wherein the transceiver increases the number of times the request signal is transmitted per unit time as the speed of the vehicle becomes faster.

5. (canceled)

6. (original) The tire status monitoring apparatus according to claim 1, wherein the data indicative of the status of the tire includes data about air pressure of the tire.

7. (original) The tire status monitoring apparatus according to claim 6, wherein the data indicative of the status of the tire includes data about temperature inside the tire.

8. (original) The tire status monitoring apparatus according to claim 6, wherein the transponder data includes an ID code for identifying each tire.

9. (currently amended) A method of monitoring statuses of a plurality of tires provided on a vehicle wherein each tire includes a transponder which generates transponder data including data indicative of the statuses of the tire and the vehicle includes a transceiver which receives the transponder data from each transponder, the method comprising the steps of:

detecting the speed of the vehicle, including determining one of a plurality of speed ranges including a first speed range and a second speed range in which a speed of the vehicle is faster than that in the first speed range;

determining the number of times a request signal is transmitted per unit time to the plurality of tires in accordance with the detected speed range of the vehicle; wherein the number of times the request signal is transmitted per unit time is constant within each speed range, and wherein the number of times the request signal is transmitted per unit time is increased when the speed range of the vehicle changes from the first speed range to the second speed range;

transmitting the request signal to each transponder from the transceiver by the decided number of transmissions of the request signal per unit time;

causing the transponders to detect the statuses of the tires in response to the request signal and generate the transponder data; and
transmitting the transponder data to the transceiver.

10. (currently amended) The method according to claim 9, wherein the step of determining the number of transmissions includes increasing the number of times the request signal is transmitted per unit time as the speed range of the vehicle becomes faster.

11. (original) The method according to claim 9, wherein the data indicative of the status of the tire includes data about air pressure of the tire.

12. (new) The tire status monitoring apparatus according to claim 1, wherein the transceiver changes the number of times the request signal is transmitted per unit time in a stepwise fashion when the speed range of the vehicle changes.

13. (new) The tire status monitoring apparatus according to claim 1, wherein the first speed range is a relatively low speed range and the second speed range is a relatively high speed range.

14. (new) The method according to claim 9, wherein determining the number of times a request signal is transmitted per unit time includes changing the number of times the request signal is transmitted per unit time in a stepwise fashion when the speed range of the vehicle changes.

15. (new) The method according to claim 9, wherein the first speed range is a relatively low speed range and the second speed range is a relatively high speed range.